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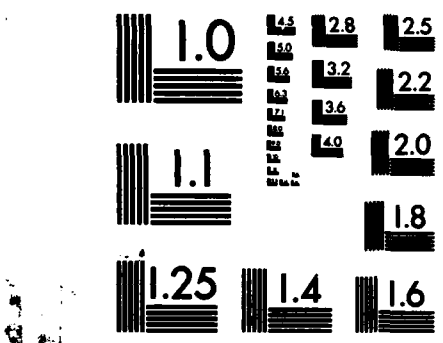

NOSC TD 667

Technical Document 667

SNOOPY
Characteristics and Mission Applications

W. W. Perkins
R. L. Wernli

March 1984
Final Report

Approved for public release; distribution unlimited.

NAVAL OCEAN SYSTEMS CENTER
San Diego, California 92152

NAVAL OCEAN SYSTEMS CENTER SAN DIEGO, CA 92152

AN ACTIVITY OF THE NAVAL MATERIAL COMMAND

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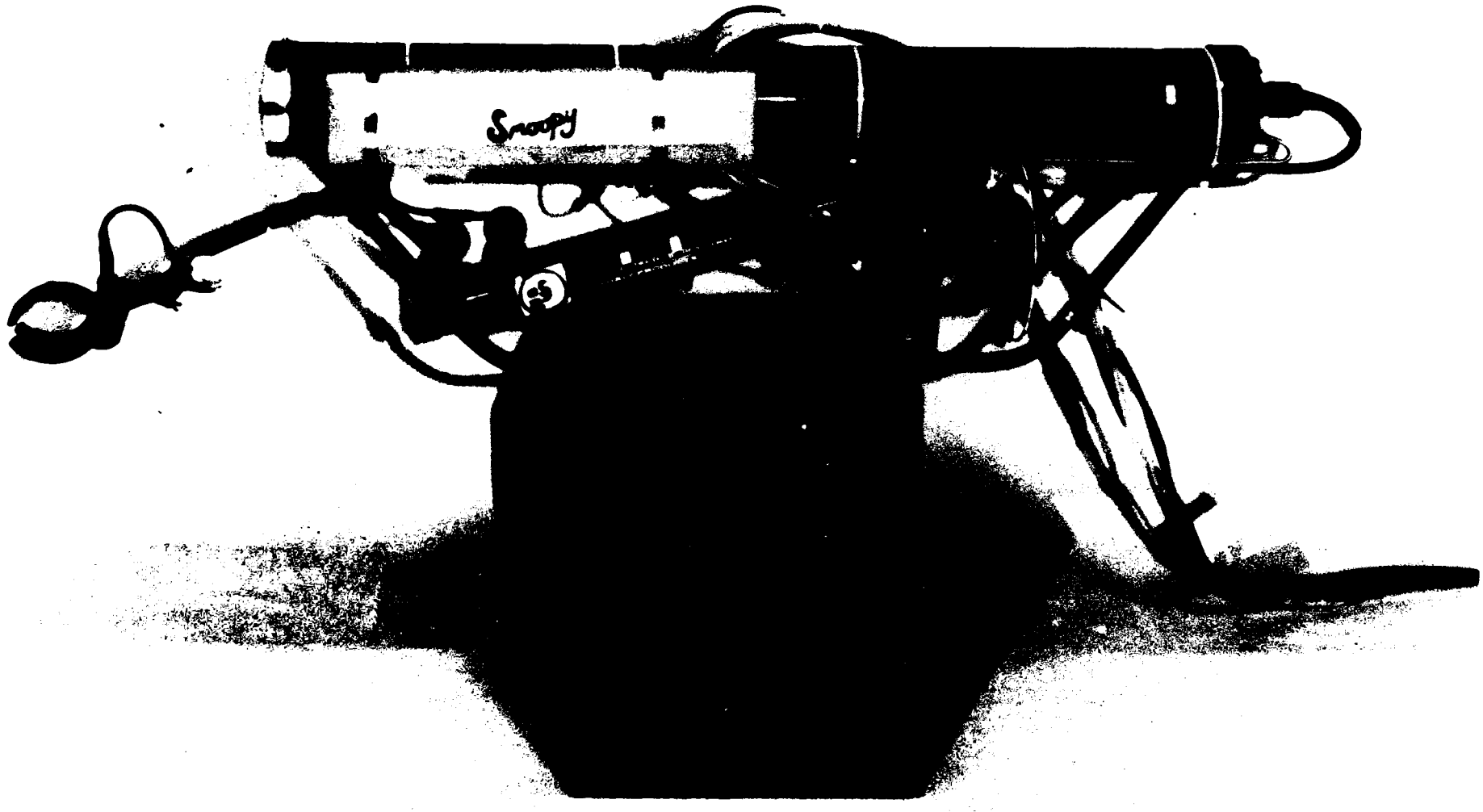

Snoopy

SNOOPY

POTENTIAL MISSION APPLICATIONS

OPERATIONAL CAPABILITIES

Underwater pipeline or cable inspection

Pier piling inspection

Ship hull inspection

Sea water inlet and outfall inspection

Directing/observing diver work

Implantment of small devices

Video observation/recording

Artificial reef studies

Near-shore bottom surveys

Limited optical search

Sand movement, beach erosion, and sediment observations

Lake surveys and underwater searches

Dam inspections

GENERAL CHARACTERISTICS

DESCRIPTION

Snoopy is a small unmanned tethered vehicle developed for underwater observation. Its primary purpose is to function as a shallow-water mobile TV camera. It is equipped with two independently controlled hydraulic thrusters, automatically maintained depth control, an electrically controlled grabber, and lights for the on-board TV camera.

Television aiming is accomplished by maneuvering the vehicle. The simple and rugged design of Snoopy offers an economical and efficient means of underwater observation to depths of 100 feet. Snoopy can be operated from any suitable platform (small boat or pier) with minimal support requirements.

The vehicle characteristics are:

General

Operating depth	100 ft
Weight	50 lb (in air)
Payload	4 lb
Mission duration	Unlimited
Lighting	One 100-watt mercury vapor light
Speed	1.5 knots

Power

Console	110 Vac
Vehicle	Hydraulic

Mobility

Vertical	Hydraulic-operated variable buoyancy chamber
Horizontal	Two hydraulic motors, 1/5 hp

Hydraulic System

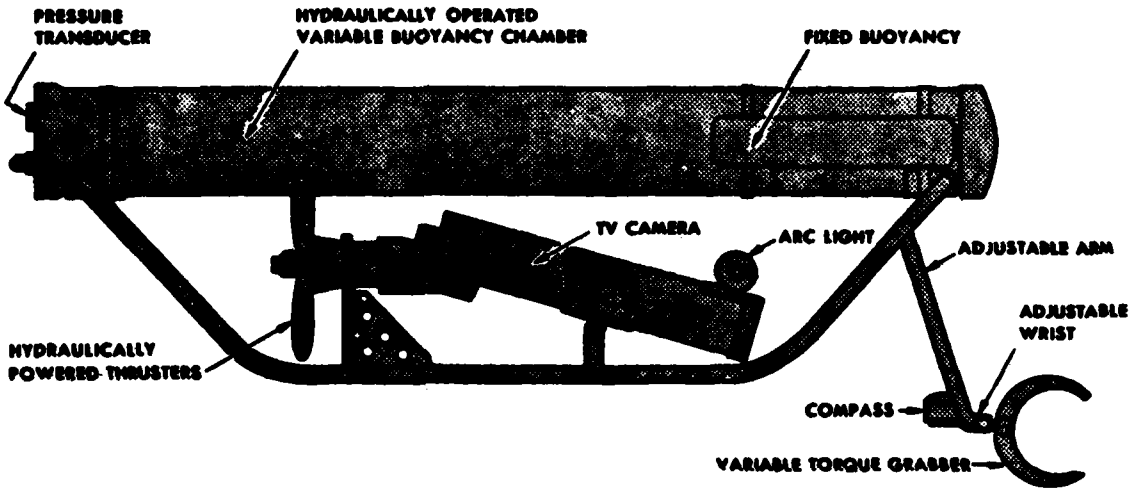
Fluid Controls Inc. 1-hp, 110 Vac motor-driven variable displacement hydraulic pump.

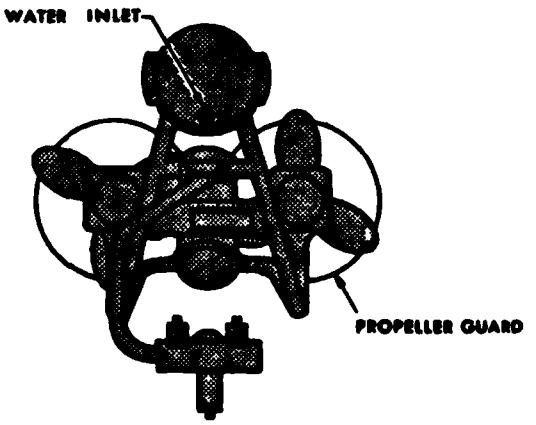
1-gpm @ 1200 psi

Hydraulic system is used for propulsion and vertical control.

Optical System

Closed-circuit TV - compatible with VTR.


PRESSURE TRANSDUCER
HYDRAULICALLY OPERATED VARIABLE BUOYANCY CHAMBER
FIXED BUOYANCY
TV CAMERA
ARC LIGHT
ADJUSTABLE ARM
ADJUSTABLE WRIST
HYDRAULICALLY POWERED THRUSTERS
COMPASS
VARIABLE TORQUE GRABBER


WATER INLET
PROPELLER GUARD

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